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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,594	01/09/2002	Matthias Berger	5-5-4-1-3-3	6592

7590 03/29/2005

Docket Administrator (Room 3J-219)  
Lucent Technologies Inc.  
101 Crawfords Corner Road  
Holmdel, NJ 07733-3030

EXAMINER

FILE, ERIN M

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/042,594

Applicant(s)

MATTHIAS BERGER ET AL

Examiner

Erin M. File

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/9/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/9/2002, 3/17/2004.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include proper numerical labeling or textual reference labels. Numerical and textual labels should be included on all elements of the drawing so that the elements can be easily understood and referenced in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

The required numerical references described in paragraph 1 should then be referenced in the specification in the description of these components.

On page 3, line 23, the recitation, "...shows the phase locked loop in an data receiver..." is incorrect. The phrase *an data* should be changed to *a data*.

The use of the term, "EXOR" (p. 4, line 21), is improper. The term exclusive-or should be used, and following the initial use the common abbreviation used should be *XOR*.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112.***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

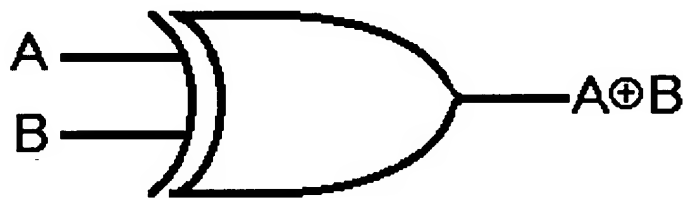
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

**Claim 1**, Figure 4 is described in the specification as a block diagram of an early-late phase detector improved according to the invention as described in Claim 1. However,

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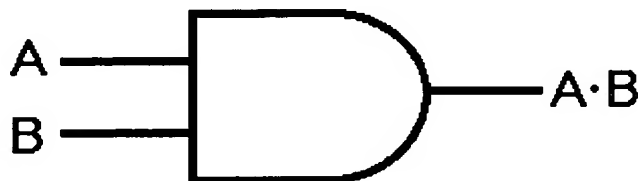
the drawing lacks numerical or textual references. Further, the description described the logic circuitry which is used to evaluate the signal values is unclear. The specification describes an exclusive-or gates used as input stages to GC1 (p. 4, line 21) and a pair of exclusive-or gates at the input of GC2 (p. 5, lines 4-5). However, there is no indication in the figure of the exclusive-or gate as described in the specification. Below is an example of the symbol typically used for an exclusive-or gate.



Symbolic Description of Logical Exclusive-Or Gate

Without a commonly used symbol representing the exclusive-or function, or some sort of textual or numerical labeling of this function, it is unclear where the exclusive-or function described in the specification is executed in the drawing.

Similarly, the logical AND gates in the description of figure 4 (p. 4, line 21, p. 5, line 4) are also not shown in figure 4. Below is an example of the symbol typically used for an AND gate.



Symbolic Description of Logical AND Gate

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Without a commonly used symbol representing the logical AND function, or some sort of textual or numerical labeling of this function, it is unclear where the AND function described in the specification is executed in the drawing.

Further, the following text of the description of figure 4 from the specification is unclear in meaning and fails to enable the invention:

*Shift register SR2 has three flip flops in a row which form stages or cells where is the first cell in the row is addressed by the falling edge of the clock pulse so as to sample an expected signal transition and store it intermediately and shift it to the output of the shift register SR2 in a time period when sample probe A appears at the output of the third cell of shift register SR1 (p. 4, lines 13-18).*

**Claim 2**, is rejected as dependent upon rejected Claim 1.

**Claim 3**, recites that “the amount of the amplification or scaling factor (x) is changed with signal distortion conditions.” However, the disclosure fails to explain how the scaling factor x (p. 4, line 30) is determined, stating that the value of factor x may be set at an appropriate factor according to further circuitry which is not shown (p. 5, lines 1-3). The specification does not enable the changing of scaling factor x with signal distortion conditions.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040. The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571)272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin M. File

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3.14.2005



STEPHEN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800